

#### MAINTENANCE:

Marco machines have been designed to give many years of trouble free service. Marco Beverage Systems design, manufacture and test to ISO9001:2000 standard. The only regular maintenance required is occasional de-scaling.

In common with all water boiler manufacturers, service calls resulting from limescale are not covered by warranty. Fitting a scale reducer is recommended, especially in hard water areas. This can reduce the build-up of scale but may not stop it altogether.

A service agent should descale the machine regularly. The frequency that descaling is required depends on the local water supply; hard water areas need more attention. Marco suggest that the machine be descaled every 3 months if the unit is in a hard water area. In soft water environments every 6 months should suffice.

#### CLEANING:

Like any cooking utensils the coffee urns of your Filtro Shuttle must be cleaned properly and regularly. Marco recommend cleaning after each days brewing using a proprietary urn-cleansing compound.

Marco Urn Cleanser (Marco Part number 8000240) is available in 800g tubs. Instructions are given on each tub.

The exterior of these machines may be cleaned with a damp cloth and a light detergent. Do not use abrasive cloths or creams, as this will spoil the finish of the machines. Do not use a water jet or spray. Beware of accidentally operating the draw off tap when cleaning the front of the machine.

#### URNS:

The Filtro Shuttle is designed to accommodate the Marco urn  
Part number: 1700174 Insulated Urn 6L Shuttle



# marco

## POURING PERFECTION

# FILTRO SHUTTLE

### INSTRUCTIONS FOR MODELS

## FILTRO SHUTTLE 5.6kW

(P/N: 1000650)

## FILTRO SHUTTLE 2.8kW

(P/N: 1000651)

**Water Pressure :** 5 - 50 psi (min.-max.)35 - 345 kPa (min.-max.)

**Water Flow Rate :** 1.5Litres per minute minimum

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# WARNINGS

## FLOODING WARNING:

**FLOODING DURING BREWING-** This machine **MUST** be positioned on a counter with a drainage facility. The machine can be operated without a basket or urn/receptacle in place which will cause water to spray/flow directly onto the counter. All potential operators should be fully trained in its correct use. The machine should always be set in the "Lock Mode" if it is left unsupervised to prevent incorrect use.

**PLUMBING-** The hose supplied with this unit is non-toxic food quality tested to 190psi. However, a hose is not a permanent connection. It is, therefore, advisable to switch off the machine and close the stopcock valve when the machine is not in use, e.g. overnight, weekends etc. All plumbing should be done by a qualified service engineer.

**SCALDING-** Beware of accidentally operating the water drawoff tap and brewing buttons, especially when cleaning the front of the boiler. **ALL** users of this machine should be trained and should be aware that the machine dispenses very hot beverages/water.

**ELECTRICAL-** This appliance must be earthed!  
A 5.6kW machine should be installed by a qualified electrician.  
The utmost care has been taken in the manufacture and testing of this unit. Failure to install, maintain and or operate this boiler according to the manufacturer's instructions may result in conditions that can cause injury or damage to property. If in any doubt about the serviceability of the machine always contact the manufacturer or your supplier for advice.

**SERVICE / MAINTENANCE** -The utmost care has been taken in the manufacture and testing of this unit. Failure to install, maintain and or operate this boiler according to the manufacturer's instructions may result in conditions that can cause injury or damage to property. If in any doubt about the serviceability of the boiler always contact the manufacturer or your supplier for advice.

## TROUBLESHOOTING:

The Marco Filtro Shuttle uses an electronic diagnostic system to help determine faults. If an error is detected a sequence of flashes is displayed through the POWER light. This sequence is repeated (cycled) until:

1. The problem is rectified by a service agent, or
2. In the case of the 6 flash cycle – the machine senses that normal operation has resumed, and the flash sequence ceases.

The number of flashes in a cycle corresponds to the symptom in the table below.

**Note: Two flash and six flash error sequences will be displayed if there is low water pressure (above 5psi). Please check that there is adequate water pressure and that the water stop-valve is open before calling your service agent. Low water pressure errors can also result from other machines taking in large volumes of water at the same time e.g. dishwashers.**

### Status/Diagnostic light guide:

No of flashes	Symptom	Action required
2	Water level below elements. Normal when machine first fills. May take 10-15 minutes to fill at low pressure	Check water pressure, if this is OK - call service agent.
3	Temperature sensor failure (o/c)	Call service agent
4	Water not heating	Call service agent
5	Temperature sensor failure (s/c)	Call service agent
6	Machine not filling	Check water pressure. If this is OK and the machine has not returned to normal operation after 15 min – call service agent



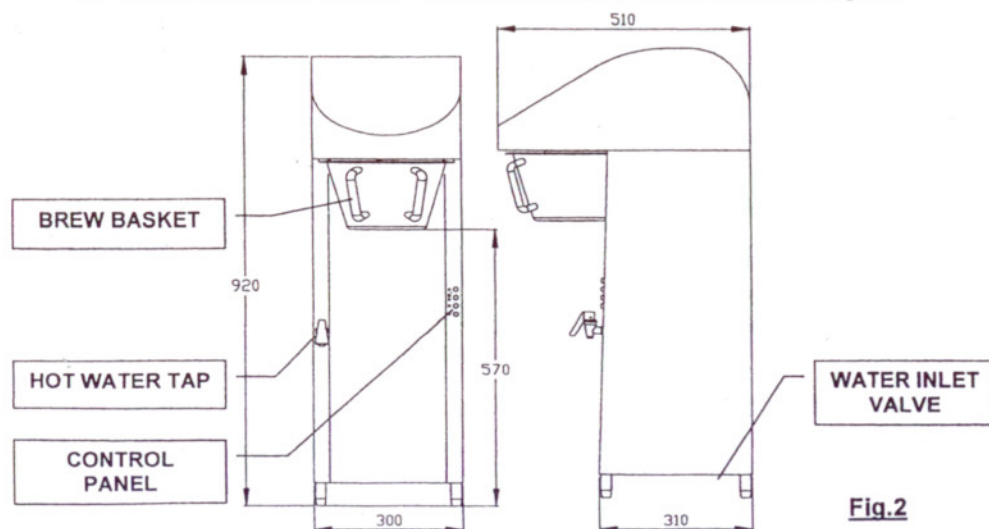
- Note: The basket will lock into position during a brew time. Time should be allowed for all the coffee to drain from the filter bowl before removing.
- After brewing, remove the filter paper with the spent grinds when the basket can freely move and dripping has stopped. A brew should only be selected whenever the green Ready to Brew LED illuminated in order to produce the highest quality of coffee possible. The Ready to Brew LED turns on when there is enough water at the correct brewing temperature.

#### HOT WATER:

- When the machine is full, water is available from the tap on the side for cups of tea etc. This is available at a rate of 0.45 litres per minute at 2.8kW and 0.9Litres per minute at 5.6kW. The water flow rate is low since priority is given to the brewing function of the machine.

#### LOCK FUNCTION:

- The Filtro Shuttle has a button lock function to prevent untrained personnel operating the machine, or accidental misuse. To enable the lock function the Lock Button (see fig.1) is pressed and held for 6 seconds, the red Lock Function LED next to the button will illuminate. The control panel is now 'locked'. No buttons are operational when the lock function is enabled. The machine will operate as normal, i.e. if the machine is brewing, it will continue to brew. Once completed another brew cannot be selected until the lock is disabled. The Ready to Brew LED may still be on, but no brew will be able to be selected.
- To disable the Lock Function – hold the Lock Button for 6 seconds again.



#### Electrical Installation Procedure:

- 1000651- 2.8kW/230V ac - a moulded 13A plug is factory fitted. A suitable 13A supply is all that is required.
- 1000650- 5.6kW/230V ac - This unit must be connected to a suitable 30A single phase power supply. This should be done by a qualified electrician.

#### Plumbing Installation Procedure:

- Mains water pressure required (limits): 5-50psi (35-345kPa)
- A minimum continuous flow rate of 1.5Litres per minute is required for correct operation. Interruption in water flow rate can result in a lower brew volume.
- Fit a Stop Valve on a cold water line and attach a 3/4" BSP male fitting, (e.g. 3/4" x 1/2" or washing machine type stop valve).
- Connect straight tailpiece of the inlet hose to the stop valve fitting. Make sure that the pre-attached sealing washer is fitted.
- Turn on the water to flush any impurities, dust etc from the inlet hose and water pipe. Allow several litres through.
- Connect right-angled tailpiece of the hose to the inlet valve of the boiler (again 3/4" BSP). Make sure the sealing washer is fitted here also.
- Turn on water and check for leaks.

#### Start-up Procedure:

- Check that all installation procedures have been carried out.
- Turn the water on at the stop valve and switch the power on at the isolator switch or mains socket. All the LEDs on the control panel will flash momentarily.
- Switch the machine on by pressing the Power Button (See Fig.1). The Power LED will glow.
- The machine will automatically take in water. The Power On LED will begin to flash until water has passed safely above the elements. Usually this takes 3 minutes but may take up to 10-15 minutes at low pressure/flow rate.
- Heating will begin, and the Power On LED will stop flashing and glow continuously.
- When the machine is full and ready to brew the Ready To Brew LED will glow.

Power	Time until first brew is possible	Recovery rate
1000650 - 5.6kW	Approx 23 minutes	0.9 Litres/minute
1000651- 2.8kW	Approx 45 minutes	0.45 Litres/minute



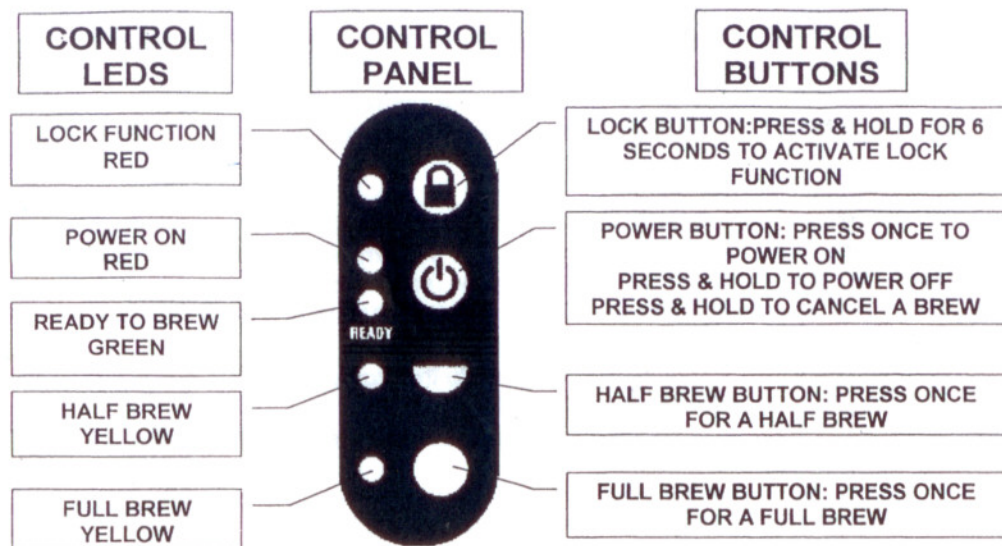


Fig.1

## OPERATION:

### The Filtro Shuttle uses the 'Heat fill cycle' as standard:

- Coffee is at the optimum temperature when operating under the heat-fill mode.
- Water will be taken in until it is a safe level above the elements. At this point the water stops and heating begins. Once this quantity of water is up to temperature, another small quantity of cold water is taken in while the heating continues. This heat fill cycle maintains the correct temperature in the tank.
- When the machine has enough water to brew coffee, the Ready To Brew LED will glow. A brew can be selected at this point.
- When brewing more water is taken in and heated which tops up the tank so brewing can continue.
- The hot water supply from the tap (see fig.2) will be limited during this brewing time.

## BREWING COFFEE:

Power	Half Brew Water output	Half Brew Coffee Output	Time	Full Brew Water Output	Full Brew Coffee Output	Time
2.8kW	2.9-3 litres	Approx 2.3 litres	4-4¾ min	5.4-5.7 litres	Approx 5.2 litres	8-9½ min
5.6kW	2.9-3 litres	Approx 2.3 litres	4-4¾ min	5.8-6 litres	Approx 5.6 litres	8-9½ min

- Slide out the coffee filter bowl and place a single sheet of filter paper in the bowl. Use the 2 wire flaps in the basket to hold the filter paper in place.
- Put the correct amount of ground coffee into the filter paper. Your coffee supply company may have pack sizes to suit the brews of your Filtro Shuttle; if not, as an approximate guide:  
115g - 150g (4 - 5½oz) for a Half Brew (approx 2.3 litres)  
230g - 300g (8 - 10½oz) for a Full Brew (approx 5.6 litres)
- Depending on the coffee grind and roast, and on water quality, you may have to adjust these quantities to obtain the optimum flavour.
- Level off the surface of coffee by gently shaking the filter bowl. Slide the coffee filter bowl into the guide rails in the brew head and push fully home.
- Ensure your Urn is in place under the basket and that the hole in the basket is lined up so as the coffee will decant into the centre of the urn's inlet funnel. The Filtro Shuttle is designed to accommodate the Marco Urn, Part number "1700174 Insulated Urn 6L Shuttle" It is possible that other urns may fit under the machine, but it is essential that their capacity is at least 6L and that their inlet funnel is in line with the hole in the bottom of the basket. A urn that is too short will result in splashing of coffee as it pours out of the basket.
- Select the correct brew on the control panel by pressing either the Half Brew or the Full Brew Button (see fig.1). Press the switch until the yellow LED illuminates. N.B. If you make a mistake press the Power Button to turn the machine off. Wait 3 seconds and turn back on again. Select the correct brew.
- A half brew should take around 4min - 4min 45secs. A full brew should take around 8mins - 9mins 30secs. This is the time that the brewing water flows, additional time is needed to drain the coffee fully. This varies according to the coffee but is approx 1-2mins.